

## CLAIMS

1  
2 ~~1.~~ A method of identifying components of members of test species that deleteriously affect members of a target species, comprising the steps of:

(a) separating at least one member of a test species into a plurality of components;

4 (b) exposing at least some of said separated components of said member(s) of the test species separately to members of the target species, wherein the target species is a symbiont of an adjainer species; and

6 (c) examining said exposures to determine for said identification whether members of the target species have been deleteriously affected by said exposures;

8 wherein steps (a), (b) and (c) are executed methodically and systematically with a large number of test species that are symbionts of the adjainer species.

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2  
4 ~~2.~~ A method according to Claim ~~1~~, wherein step (a) is executed with such a large number of test species that are symbionts of the adjainer species that the ratio of execution of step (a) when the test species are symbionts of the adjainer species relative to execution of step (a) when the test species are not symbionts of the adjainer species is significantly higher than said ratio of execution according to the prior art.

14 ~~13~~ 12

3.  
3. A method of identifying components of members of test species that deleteriously affect members of a target species, comprising the steps of:

(a) separating at least one member of a test species into a plurality of components;

(b) exposing at least some of said separated components of said member(s) of the test species separately to members of the target species, wherein the target species is a symbiont of an adjainer species; and

(c) examining said exposures to determine for said identification whether members of the target species have been deleteriously affected by said exposures;

wherein step (a) is executed with such a large number of test species that are symbionts of the adjainer species that the ratio of execution of step (a) when the test species are symbionts of the adjainer species relative to execution of step (a) when the test species are not symbionts of the adjainer species is significantly higher than said ratio of execution according to the prior art.

4.  
4. A method according to Claim 1 or 3, wherein steps (b) and (c) are executed in such large numbers when the test species are symbionts of the adjainer species that the ratio of execution of steps (b) and (c) when the test species are symbionts of the adjainer species relative to execution of steps (b) and (c) when the test species are not symbionts of the adjainer species is significantly higher than said ratio of execution according to the prior art.

2 5. A method of identifying components of members of test species that deleteriously affect members of a target species, comprising the steps of:

4 (a) separating at least one member of each of a plurality of test species into a plurality of components;

6 (b) exposing at least some of said separated components of said member(s) of the test species separately to members of the target species, wherein the target species is a symbiont of an adjoiner species; and

8 (c) examining said exposures to determine for said identification whether members of the target species have been deleteriously affected by said exposures;

10 wherein steps (b) and (c) are executed in such large numbers when the test species are symbionts of the adjoiner species that the ratio of execution of steps (b) and (c) when the test species are symbionts of the adjoiner species relative to execution of steps (b) and (c) when the test species are not symbionts of the adjoiner species is significantly higher than said ratio of execution according to the prior art.

6. A method of identifying components of members of a test species that deleteriously affect members of a target species, comprising the steps of:

(a) separating at least one member of the test species into a plurality of components;

(b) exposing at least some of said separated components of said member(s) of the test species separately to members of the target species, wherein the target species is a symbiont of an adjainer species; and

(c) examining said exposures to determine for said identification whether members of the target species have been deleteriously affected by said exposures;

wherein steps (b) and (c) are executed in such large numbers when the test species is a symbiont of the adjainer species that the ratio of execution of steps (b) and (c) when the test species is a symbiont of the adjainer species relative to execution of steps (b) and (c) when the test species is not a symbiont of the adjainer species is significantly higher than said ratio of execution according to the prior art.

1. A method according to Claim 1, 3, 5 or 6, further comprising the step of:

(d) prior to step (a), identifying the test species as a symbiont of the given adjainer species when the test species had not been known to be a symbiont of the given adjainer species.

2 <sup>8</sup>/<sub>8</sub> A method of identifying components of members of a test species that deleteriously affect members of a target species, comprising the steps of:

4 (a) identifying the test species as a symbiont of a given adjainer species when the test species had not been known to be a symbiont of the given adjainer species;

6 (b) separating at least one member of the test species into a plurality of components;

8 (c) exposing at least some of said separated components of said member(s) of the test species separately to members of the target species, wherein the target species is a symbiont of the adjainer species; and

10 (d) examining said exposures to determine for said identification whether members of the target species have been deleteriously affected by said exposures.

2 <sup>9</sup>/<sub>9</sub> A method according to Claim <sup>1, 3, 6</sup>/<sub>1, 3, 6</sub> or <sup>8</sup>/<sub>8</sub>, further comprising the step of:

(e) prior to said separation step, exposing at least a component of the target species to at least one member of the test species.

10  
10. A method of identifying components of members of a test species that deleteriously affect members of a target species, comprising the steps of:

(a) exposing at least a component of at least one member of the target species to at least one member of the test species;

(b) subsequent to step (a), separating said exposed at least one member of the test species into a plurality of components;

(c) exposing at least some of said separated components of said member(s) of the test species separately to members of the target species, wherein the target species is a symbiont of an adjoiner species and the test species is a symbiont of the adjoiner species; and

(d) examining said exposures to determine for said identification whether members of the target species have been deleteriously affected by said exposures.

11  
11. A method of identifying components of members of test species that deleteriously affect members of a target species, comprising the steps of:

(a) separating at least one member of a test species into a plurality of components;

(b) exposing at least some of said separated components of said member(s) of the test species separately to members of the target species, wherein the target species is a symbiont of an adjoiner species; and

(c) examining said exposures to determine for said identification whether members of the target species have been deleteriously affected by said exposures;

wherein steps (a), (b) and (c) are executed methodically and systematically with a large number of test species that are traditional food sources of the adjoiner species.

12  
12. A method according to Claim 11, wherein step (a) is executed with such a  
2 large number of test species that are traditional food sources of the adjainer species that  
the ratio of execution of step (a) when the test species are traditional food sources of the  
4 adjainer species relative to execution of step (a) when the test species are not traditional  
food sources of the adjainer species is significantly higher than said ratio of execution  
6 according to the prior art.

13  
13. A method of identifying components of members of test species that  
2 deleteriously affect members of a target species, comprising the steps of:

(a) separating at least one member of a test species into a plurality of components;  
4 (b) exposing at least some of said separated components of said member(s) of the  
test species separately to members of the target species, wherein the target species is a  
6 symbiont of an adjainer species; and

(c) examining said exposures to determine for said identification whether members  
8 of the target species have been deleteriously affected by said exposures;

wherein step (a) is executed with such a large number of test species that are  
10 traditional food sources of the adjainer species that the ratio of execution of step (a) when  
the test species are traditional food sources of the adjainer species relative to execution of  
12 step (a) when the test species are not traditional food sources of the adjainer species is  
significantly higher than said ratio of execution according to the prior art.

<sup>14</sup>  
~~14~~ A method according to Claim <sup>11</sup>~~11~~ or <sup>13</sup>~~13~~, wherein steps (b) and (c) are executed  
2 in such large numbers when the test species are traditional food sources of the adjainer  
species that the ratio of execution of steps (b) and (c) when the test species are traditional  
4 food sources of the adjainer species relative to execution of steps (b) and (c) when the test  
species are not traditional food sources of the adjainer species is significantly higher than  
6 said ratio of execution according to the prior art.

<sup>15</sup>  
~~15~~ A method of identifying components of members of test species that  
2 deleteriously affect members of a target species, comprising the steps of:

(a) separating at least one member of each of a plurality of test species into a  
4 plurality of components;

(b) exposing at least some of said separated components of said member(s) of the  
6 test species separately to members of the target species, wherein the target species is a  
symbiont of an adjainer species; and

(c) examining said exposures to determine for said identification whether members  
8 of the target species have been deleteriously affected by said exposures;

wherein steps (b) and (c) are executed in such large numbers when the test species  
10 are traditional food sources of the adjainer species that the ratio of execution of steps (b)  
and (c) when the test species are traditional food sources of the adjainer species relative to  
12 execution of steps (b) and (c) when the test species are not traditional food sources of the  
adjainer species is significantly higher than said ratio of execution according to the prior  
14 art.



14  
16. A method of identifying components of members of a test species that deleteriously affect members of a target species, comprising the steps of:

(a) separating at least one member of the test species into a plurality of components;

(b) exposing at least some of said separated components of said member(s) of the test species separately to members of the target species, wherein the target species is a symbiont of an adjainer species; and

(c) examining said exposures to determine for said identification whether members of the target species have been deleteriously affected by said exposures;

wherein steps (b) and (c) are executed in such large numbers when the test species is a traditional food source of the adjainer species that the ratio of execution of steps (b) and (c) when the test species is a traditional food source of the adjainer species relative to execution of steps (b) and (c) when the test species is not a traditional food source of the adjainer species is significantly higher than said ratio of execution according to the prior art.

17  
17. A method according to Claim ~~11, 13, 15~~ or ~~16~~, further comprising the step of:  
(d) prior to step (a), identifying the test species as a co-evolutionary food source of the given adjainer species when the test species had not been known to be a co-evolutionary food source of the given adjainer species.

18  
18. A method of identifying components of members of a test species that deleteriously affect members of a target species, comprising the steps of:

(a) identifying the test species as a co-evolutionary food source of the given adjainer species when the test species had not been known to be a co-evolutionary food source of the given adjainer species;

(b) separating at least one member of the test species into a plurality of components;

(c) exposing at least some of said separated components of said member(s) of the test species separately to members of the target species, wherein the target species is a symbiont of the adjainer species; and

(d) examining said exposures to determine for said identification whether members of the target species have been deleteriously affected by said exposures.

19  
19. A method according to Claim 11, 13, 16 or 18, further comprising the step of:

(e) prior to said separation step, exposing at least a component of the target species to at least one member of the test species.

<sup>20</sup>  
~~20~~. A method of identifying components of members of a test species that deleteriously affect members of a target species, comprising the steps of:

(a) exposing at least a component of at least one member of the target species to at least one member of the test species;

(b) subsequent to step (a), separating said exposed at least one member of the test species into a plurality of components;

(c) exposing at least some of said separated components of said member(s) of the test species separately to members of the target species, wherein the target species is a symbiont of an adjainer species and the test species is a traditional food source of the adjainer species; and

(d) examining said exposures to determine for said identification whether members of the target species have been deleteriously affected by said exposures.

<sup>21</sup>  
~~21~~. A method according to any of Claims <sup>1 3 5 6 8 10 11 13 15 16 18</sup> ~~1, 3, 5, 6, 8, 10, 11, 13, 15, 16, 18~~ or <sup>20</sup>  
~~20~~, wherein the adjainer species is the human species.

<sup>22</sup>  
~~22~~. A method according to any of Claims <sup>1 3 5 6 8 10 11 13 15 16 18</sup> ~~1, 3, 5, 6, 8, 10, 11, 13, 15, 16, 18~~ or <sup>20</sup>  
~~20~~, wherein the adjainer species has a near-human-species genetic composition.

<sup>23</sup>  
~~23~~. A separated component of a member of a test species identified by the method of any of Claims <sup>1 3 5 6 8 10 11 13 15 16 18</sup> ~~1, 3, 5, 6, 8, 10, 11, 13, 15, 16, 18~~ or <sup>20</sup>  
~~20~~ as deleteriously affecting members of a target species or an equivalent of said identified component.

24

24. A method of using a component of a member of a test species identified by the method of any of Claims <sup>1, 3, 5, 6, 8, 10, 11, 13, 15, 16, 18, 20</sup> ~~1, 3, 5, 6, 8, 10, 11, 13, 15, 16, 18 or 20~~ as deleteriously affecting members of a target species and/or an equivalent of said identified component, comprising the step of:

(e) exposing said identified component and/or an equivalent of said identified component to members of the target species that are residing in or on a member of the adjoiner species.

25

25. A method of manufacturing a product including a test-species component identified by the method of any of Claims <sup>1, 3, 5, 6, 8, 10, 11, 13, 15, 16, 18, 20</sup> ~~1, 3, 5, 6, 8, 10, 11, 13, 15, 16, 18 or 20~~ as deleteriously affecting members of a target species and/or an equivalent of said identified component, comprising the step of:

(e) providing said component in bulk quantities.

26

26. A product manufactured according to the method of Claim <sup>25</sup> ~~25~~.

27

27. A method according to Claim <sup>25</sup> ~~25~~, further comprising the step of:

(f) modifying the product to decrease any deleterious effect upon the adjoiner species caused by the identified component and/or said equivalent thereof.

28

28. A product manufactured according to the method of Claim <sup>27</sup> ~~27~~.

29

29. A method according to Claim <sup>25</sup> ~~25~~, further comprising the step of:

(f) modifying the product to increase the deleterious effect upon the target species caused by the identified component and/or said equivalent thereof.

30

30. A product manufactured according to the method of Claim <sup>29</sup> ~~29~~.

31

21. A method according to Claim <sup>25</sup>~~25~~, wherein step (e) comprises separating said component in bulk quantities from said members of said test species.

32

32. A product manufactured according to the method of Claim <sup>31</sup>~~31~~.

33

23. A method according to Claim <sup>26</sup>~~25~~, wherein step (e) comprises synthesizing said component and/or an equivalent thereof in bulk quantities.

34

34. A product manufactured according to the method of Claim <sup>33</sup>~~33~~.

35

35. A method of testing a product manufactured according to Claim <sup>25</sup>~~25~~, comprising the steps of:

(f) exposing said product to the adjoiner species or a member of a trial species; and

(g) examining said exposure of step (f) to determine the extent of any deleterious effect upon the adjoiner species or the trial species respectively.

36

36. A method of testing a product manufactured according to Claim <sup>25</sup>~~25~~, comprising the steps of:

(f) exposing said product to the target species; and

(g) examining said exposure of step (f) to determine the extent of the deleterious effect upon the target species.

<sup>37</sup>  
~~37~~ A method according to Claim <sup>10</sup> ~~10~~ or <sup>20</sup> ~~20~~, further comprising the step of:

2 (e) interposing a sufficient period of time ~~between~~ steps (a) and (b) to enable said exposed test species member(s) to react to said exposure of step (a).

<sup>38</sup>  
~~38~~ A method according to Claims <sup>1</sup> ~~1~~, <sup>3</sup> ~~3~~, <sup>5</sup> ~~5~~, <sup>6</sup> ~~6~~, <sup>8</sup> ~~8~~, <sup>10</sup> ~~10~~, <sup>11</sup> ~~11~~, <sup>13</sup> ~~13~~, <sup>15</sup> ~~15~~, <sup>16</sup> ~~16~~, <sup>18</sup> ~~18~~ or <sup>20</sup> ~~20~~,

2 wherein members of the test species at least in some aspect deleteriously affect members of the adjoiner species.

<sup>39</sup>  
~~39~~ A method according to Claims <sup>1</sup> ~~1~~, <sup>3</sup> ~~3~~, <sup>5</sup> ~~5~~, <sup>6</sup> ~~6~~, <sup>8</sup> ~~8~~, <sup>10</sup> ~~10~~, <sup>11</sup> ~~11~~, <sup>13</sup> ~~13~~, <sup>15</sup> ~~15~~, <sup>16</sup> ~~16~~, <sup>18</sup> ~~18~~ or <sup>20</sup> ~~20~~,

2 wherein members of the target species at least in some aspect deleteriously affect members of the adjoiner species.

<sup>40</sup>  
~~40~~ A method according to Claims <sup>1</sup> ~~1~~, <sup>3</sup> ~~3~~, <sup>5</sup> ~~5~~, <sup>6</sup> ~~6~~, <sup>8</sup> ~~8~~, <sup>10</sup> ~~10~~, <sup>11</sup> ~~11~~, <sup>13</sup> ~~13~~, <sup>15</sup> ~~15~~, <sup>16</sup> ~~16~~, <sup>18</sup> ~~18~~ or <sup>20</sup> ~~20~~,

2 wherein during said step of exposing separated components of member(s) of said test species to members of the target species, said exposed members of the target species are  
4 isolated from the adjoiner species.